

New and Emerging Evidence

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Non-pharmacologic treatments for low back pain

- High quality systematic review of 114 systematic reviews and randomized control trials covering the following treatments for chronic low back pain
 - Exercise
 - Yoga
 - Tai chi
 - Mindfulness-based stress reduction
 - Psychological therapy
 - Multidisciplinary rehabilitation
 - Acupuncture
 - Massage
 - Spinal manipulation

Chou, et al. *Ann Intern Med.* 2017;166(7):493-505.

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2

Non-pharmacologic treatments for low back pain

- Overall, there was low to moderate quality evidence that non-pharmacologic approaches to low back pain result in small to moderate size short-term improvements in pain
 - Exercise, tai chi, yoga, MBSR, CBT, multidisciplinary rehab, acupuncture and spinal manipulation
- Functional outcomes were more mixed, but many therapies showed small to moderate size short term improvements

Chou, et al. *Ann Intern Med.* 2017;166(7):493-505.

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3

Uncertainties

- Little information on combination therapies
- Most outcomes were short-term
- Most of the results don't apply to low back pain with radiculopathy (which is common)
- Optimal provider types and settings are not well established
- Comparisons to sham procedures were more likely to show no effect, suggesting the presence of placebo effects

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4

Implications

- Multi-modality approaches to managing chronic low back pain are an essential tool in addressing the opioid epidemic
- Payer policies (including public payers) are starting to include a broad array of non-pharmacologic treatments

Smoking cessation in pregnancy

- Oregon HERC multisector coverage guidance approved in August 2016
- Examined a mix of systematic reviews and randomized control trials covering:
 - Nicotine replacement
 - Behavioral interventions
 - Financial incentives
 - Programs to reduce secondhand smoke exposure
 - Smoke free legislation
 - Tobacco excise taxes

Smoking cessation in pregnancy

- Behavioral interventions and financial incentives appeared to be most effective in promoting cessation during pregnancy
- Smoke free legislation and tobacco excises taxes were associated with fewer adverse perinatal outcomes in observational and modeling studies

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7

Uncertainties

- Most of the trial evidence found positive results for cessation during pregnancy, but perinatal outcomes and long-term smoking cessation was less certain
 - Behavioral interventions were associated with modest reductions in pregnancy complications and low birth weight
- Structure of financial incentives varied

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8

Implications

- HERC recommended coverage for:
 - Behavioral interventions
 - Financial incentives
- HERC stated that evidence supports:
 - Smoke free legislation
 - Increased tobacco excise taxes

Home vs Institutional Long-term Care

- Cochrane systematic review of 10 studies comparing home or foster home care to institutional long-term care for functionally dependent older adults

Home vs Institutional Long-term Care

- Insufficient high quality data to draw any conclusions about the merits of a particular model of care
- Community-based care may be associated with improved quality of life and physical function
- But, community-based care might also be associated with a greater risk of hospitalization

Young, et al. *Cochrane Database of Systematic Reviews*. 2017;4:CD009844.

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11

Uncertainties

- Only one older study was done as a randomized trial
- Inconsistent data reporting in the primary studies
- Four of the studies were conducted outside the US
- Variability in the types of home care provided
- Complex interventions in a diverse group of patients

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12

Implications

- The evidence leaves a great deal of uncertainty about the merits of different models of care
- More and better quality studies are needed and should include a broader range of outcomes including health care costs and assessments of caregiver burden